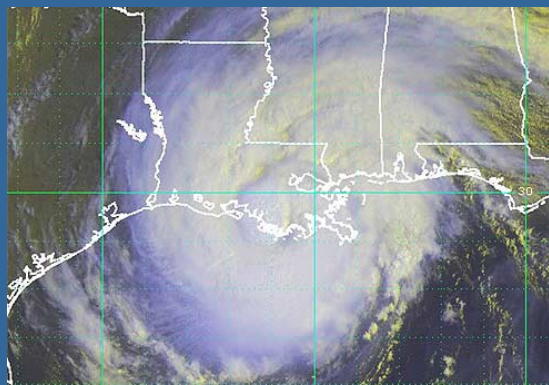


Transition

Creating the Exploration Future

Michoud Assembly Facility Newsletter

By Sheila Cloud, Michoud Transition Director



Satellite Image of Hurricane Gustav

Michoud Assembly Facility escapes wrath of Gustav

Michoud Facility Assembly in New Orleans experienced sustained winds of 50-60 mph, with gusts of up to 89 mph, when Hurricane Gustav passed to the west of New Orleans Sept. 1.

Initial reports following the hurricane indicated 1.5 inches of rainfall accumulated on the Michoud grounds, but high-capacity pumps, designed to remove excess water, performed normally. The water level in the Gulf Intercoastal Waterway never rose to within 5 feet of the top of the levee that protects Michoud from the Gulf of Mexico waters.

There were no injuries to the 64-person storm crew that stayed on-site to monitor the hurricane. Called the ride-out crew because they stay behind to "ride out the storm," its members include NASA civil service, Lockheed Martin contractor employees, US Coast Guard personnel, and Coastal International Security personnel.

"We have an experienced ride-out crew and they executed the emergency plan for hurricanes just the way they were supposed to," said Clyde "Chip" Jones, Michoud's chief operating officer.

"We were fortunate to have missed the worst of the storm," he said, noting that facility preparations before the hurricane ensured that damages were kept to a minimum.

Based on initial assessments, there was no damage to flight hardware or support equipment at Michoud. Some of its facilities did suffer minimal damage caused by wind and water intrusion. Major plant infrastructure systems became fully operational Sept. 3.

A limited number of Lockheed Martin personnel will begin a detailed inspection to restart production of space shuttle external tanks, which is targeted to begin Sept. 8. That schedule will depend on the ability of Michoud's workforce to return to their homes in the New Orleans area.



Water rose dockside, which is outside the levee at Michoud, as Hurricane Gustav passed over Sept. 1. Only 1.5 inches of rain accumulated on the ground inside the levee and just one of the four pumps operated to keep Michoud dry.

Image Credit: NASA



NASA Hurricane Website
http://www.nasa.gov/mission_pages/hurricanes/main/index.html
Credit: NASA/NOAA GOES Project



ISS017-E-015046 (29 Aug. 2008) --- This panoramic view looking northwest towards tropical storm Gustav was acquired by the crew of the International Space Station at about 1:24 p.m. (EDT) on Aug. 29 as the storm, located just west of Jamaica, was approaching hurricane strength with winds of 70 miles per hour and moving west-northwest at 11 miles per hour.

Photo Credit: NASA

"Transition provides us with a unique opportunity to reinvent and revitalize NASA's human spaceflight program and make it more efficient by focusing on the evolution of our skilled workers and our facilities and infrastructure."

--William H. Gerstenmaier, NASA Associate Administrator for Space Operations

Michoud moving forward with Shuttle and Constellation

The face of NASA's Michoud Assembly Facility is changing just as our work is growing in scope. In addition to the world-class manufacturing and production of the space shuttle's external tank, Michoud is beginning its transformation to include Constellation Program work with the delivery of Orion and Upper Stage tooling. Major components of the Orion Universal Weld System, as well as the Upper Stage Robotic Weld tool, were delivered Aug. 15. In addition, progress continues to be made in the Upper Stage manufacturing area with the last of the storage racks being removed. This represents the largest area under preparation during phase I of the external tank to upper stage transition. With all these initiatives, Michoud is well on its way to transition and execute the agency mission outlined in the U.S. Space Exploration Policy.

This month, the Shuttle to Constellation Transition report update is scheduled to be released, furthering our information on the transition evolution within the agency and increasing fidelity of our workforce efforts.

The new NASA work being done at Michoud on the next spaceflight system is attracting the attention of government officials. On Aug. 21, Leila Borazjani, a member of the staff of U.S. Rep. Charlie Melancon (D-LA); Justin Crossie, a member of the staff of U.S. Rep. Steve Scalise (R-LA); and LaVerne Saulny, a member of the staff of U.S. Sen. Mary Landrieu (D-LA), visited Michoud to tour the facility and learn about its future plans.

NASA is also proud to be a part of the increased economic development of the New Orleans area. The Louisiana Technology Council, Greater New Orleans, Inc. (GNO, Inc.) and the Louisiana Economic Development team are planning Louisiana Aerospace Industry Day Oct. 15 in downtown New Orleans. This event is open to small businesses to provide information about how to do business with NASA and its prime contractors. NASA will provide an update about Ares, NASA's new rocket that will launch crew to the space station and the moon. The update also will outline and define future work coming to the area. Several prime contractors including Boeing, Lockheed Martin, Pratt & Whitney and SAIC also will lead a discussion about the process of working as a subcontractor.

In December, NASA will award the Manufacturing Support Facilities Operations Contract (MSFOC). This will allow an on-site facility integration and operations contractor to oversee facility operations at Michoud and ensure collaboration among the various contractors providing support of the Constellation fleet: the Ares I rocket, Ares V heavy cargo launch vehicle and Orion crew capsule.

NASA will continue to depend on Michoud's extensive manufacturing capabilities for the Constellation Program: Manufacturing and assembling of Boeing's Ares I Upper Stage, as well as avionics system integration and checkout, will be housed at Michoud. Lockheed Martin will build structures here for the Orion crew capsule and its Launch Abort System. In future years, the Ares V core stage and Earth departure stage will be built here as well. We are already taking our first steps toward sending astronauts to Earth orbit, the moon and beyond at Michoud!

With your help, I look forward to enabling this transformation. And I commend all the employees at Michoud for your hard work and dedication to America's spaceflight program.

Shelia Cloud, MAF Transition Director



Chip Jones, at right foreground, Michoud's chief operating officer, explains the manufacturing area scale model and layout of new work on the Constellation Program at Michoud to congressional staffers and NASA employees Aug. 21.



Participating in the LaSpace/NASA Michoud Fellow Program ceremony July 25 were Shelia Cloud, Michoud transition director; Steve Turner, Michoud safety and health manager; back row: Paul Chandler, a physical science and chemistry teacher at Slidell High School in Slidell, La.; Deborah Nunez, a physics teacher at Covington High School in Covington, La.; Dr. Paulette Perrin, a curriculum specialist for St. Tammany Parish Schools in Covington, La.; Ruth Hill, an earth science teacher at Monteleone Junior High School in Mandeville, La.; Crystal Drake, an earth science teacher at St. Tammany Junior High School in Slidell, La.; JoAnne Hobson, an earth science teacher at Slidell Junior High School in Slidell, La.; and Dr. Pam Blanchard, representative of Louisiana State University in Baton Rouge, La.

Michoud Facility Enhancements Following Hurricane Katrina

Since Hurricane Katrina in 2005, Michoud has implemented a major program to repair hurricane damage and to provide facility improvements for increased resistance to future storms. The initial phase, primarily focused on repairs of Hurricane Katrina damage, is nearing completion. Some of the west- and east-facing levees protecting Michoud have been repaired and reinforced. The south levee betterment project is scheduled to begin in October. This will allow part of the south levee to be raised several feet to provide additional protection. The vital pumping house station refurbishment project is under way and expected to be completed in April 2009. Many doors and roofs have been upgraded to protect against wind damage. The emergency operation center has been upgraded and a second pumping station is slated to be added in early 2010 to improve the capability to remove water from the Michoud site.

In addition, the U.S. Coast Guard has begun construction of its \$80 million Integrated Support Command Center, and construction will begin on the Research and Development Administration Building in February 2009.

LaSpace/NASA Michoud Education Fellow Program bring space to teachers

NASA's Michoud Assembly Facility, the state of Louisiana and Louisiana State University have partnered to create the LaSpace/NASA Michoud Education Fellow Program. This pilot program pairs five Louisiana science teachers with department heads, engineers, chemists, welders and others at Michoud for three, two-week sessions to learn first-hand about the various science and technology careers available to their students. Throughout the 2008-2009 school year, Michoud employees will work with the teachers, offering information teachers can take back to their classrooms, reaching over 700 students.

The teachers attended their first session in June and returned in July. They teach earth science, physics and physical science to students in eighth through 12th grades. "Our first week at the Michoud Assembly Facility was outstanding," said Paulette Perrin, a curriculum specialist for the St. Tammany Parish Schools in Covington, La. "Our teachers were given access to people and places within the facility that most people do not experience. Michoud will be intimately involved in the Constellation Program and they are very interested in having our students become aware of the opportunities for employment in the space program in their own back yard."



Repairs to the Vertical Assembly Building (Bldg. 110) were done to replace several exterior panels torn off by Hurricane Gustav. The building is 225 feet high, and the torn panels were located close to the ground. Man lifts were used for the repair.

Recent / Upcoming Events

- Oct. 10 - STS-125 shuttle launch
 - Oct. 15 – Louisiana Aerospace Industry Day– Hosted by Greater New Orleans, Inc., Louisiana Technology Council and the Louisiana Economic Development team, this event is for small businesses to learn about opportunities with NASA and how to partner with prime contractors.
 - Nov. 12 – STS-126 Shuttle launch
 - Mid-November – ET-130 tank completion and roll-out
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External Tanks ET-127 and ET-129 ready for launch

External Tank ET-127 and the twin solid rocket boosters, which will fly on Space Shuttle Atlantis on the next shuttle mission STS-125, were joined Aug. 3 at the NASA's Kennedy Space Center, Fla. On Aug. 18, the external tank and boosters were attached to Atlantis. STS-125, the fifth and final servicing mission to the Hubble Space Telescope, is scheduled to launch from Kennedy Space Center in October. In addition, External Tank ET-129 arrived at Kennedy Aug. 11 from Michoud. ET-129 will fly with Space Shuttle Endeavor on the STS-126 mission to the International Space Station slated for launch Nov. 12.



External tank ET-127 and the twin solid rocket boosters were mated at the Kennedy Center, Fla., Aug. 3 in preparation for the STS-125 space shuttle mission in October.



Components of the Orion Universal Weld System were delivered to Michoud Aug.15. The component sub-assembly was moved to a storage area in preparation for installation on the new foundations. Additional components for the Upper Stage Weld tool also were delivered.